(19)日本国特許庁（ＪＰ）　(12) **公開特許公報**（Ａ）　(11)特許出願公開番号
特開2003－180840
（P2003－180840A）
(43)公開日　平成15年７月２日(2003.7.2)

(51)Int.Cl.[7]	識別記号	ＦＩ		ﾃｰﾏｺｰﾄﾞ（参考）
Ａ６１Ｍ　25/00	４６４	Ａ６１Ｍ　25/00	４６４	４Ｃ０６０
	３０６		３０６Ｚ	４Ｃ１６７
Ａ６１Ｂ　17/00	３２０	Ａ６１Ｂ　17/00	３２０	
Ａ６１Ｊ　15/00		Ａ６１Ｊ　15/00	Ｚ	
Ａ６１Ｍ　25/02		Ａ６１Ｍ　25/02	Ｄ	

審査請求　未請求　請求項の数１　ＯＬ　（全４頁）

(21)出願番号　特願2001－382449(P2001－382449)

(22)出願日　平成13年12月17日(2001.12.17)

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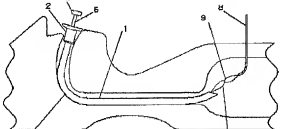
Ｆターム(参考)　4C060 MM26
4C167 AA02 AA10 AA15 AA77 BB03 BB04 BB06 BB07 BB25 BB26 CC20 DD10 HH09 HH10 HH14

(54)【発明の名称】　感染防止胃瘻造設キット

(57)【要約】
【課題】　内視鏡を介して胃瘻造設術を施行する際に、創部が感染することなく簡便にかつ患者への苦痛がなくカテーテルを留置することができる感染防止胃瘻造設キットを提供する。
【解決手段】　一方の末端にストッパーを有し、胃の内腔と体外とを腹壁を貫通して固定されるカテーテルとカテーテルを胃の内腔に導入するためのオーバーチューブより構成され、オーバーチューブの内腔又はカテーテル及びストッパーの外壁の少なくとも一方に親水性処理を施したことを特徴とする感染防止胃瘻造設キット。



PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2003-180840
(43)Date of publication of application : 02.07.2003

(51)Int.Cl. A61M 25/00
A61B 17/00
A61J 15/00
A61M 25/02

(21)Application number : 2001-382449
(22)Date of filing : 17.12.2001

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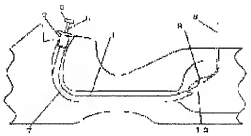
(54) INFECTION-PREVENTING GASTROSTOMY KIT

(57)Abstract:
PROBLEM TO BE SOLVED: To provide an infection-preventing gastrostomy kit by which a catheter can be indwelled simply without infecting an wounded part and without a pain of a patient in the case of performing a gastrostomy operation via an endoscope.
SOLUTION: This infection-preventing gastrostomy kit has a stopper at one terminal and comprises a catheter fixed to the lumen of the stomach and the outside of the body through the abdominal wall, and an over tube for introducing the catheter into the lumen of the stomach. Hydrophilic treatment is performed to the lumen of the over tube or at least one of the outer walls of the catheter and the stopper.



CLAIMS

[Claim(s)]
[Claim 1]A catheter which has a stopper at one end and is fixed by penetrating an abdominal wall in a stomach lumen and the outside of the body, An infection preventing gastrostomy kit having comprised an exaggerated tube for introducing a catheter into a stomach lumen, and performing hydrophilic processing to at least one side of an outer wall of a lumen of an exaggerated tube or a catheter, and a stopper.

[Translation done.]

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention]This invention relates to an infection preventing gastrostomy kit. When enforcing the gastrostomy especially via an endoscope, infection is prevented, and it is related with the infection preventing gastrostomy kit used in order to detain a catheter simple.
[0002]
[Description of the Prior Art]As a medication method of the nutrition to the patient who cannot take in a nutrition from taking orally, generally, it passed and three kinds, a vein nutrition, a nasogastric-tube nutrition, and the enteral feeding from the gastric fistula, were performed.
[0003]Although it passes and a vein nutrition is what is called a drop by drop titration that supplies a nutrition from a vein, since strict clean nature is required while there is a merit which can be enforced to any patients, this has a heavy burden to a care worker, and the management by being home is dramatically difficult. Since it became increase of a burden to a care worker further because a health care cost becomes big-ticket, especially the adaptation to the patient who needs prolonged nutrition management was difficult.
[0004]A nasogastric-tube nutrition inserts a catheter from a nose, a catheter is detained in the stomach, and a nutrient is supplied. While there is a merit which can be enforced easily, since the detained catheter contacts a nasal cavity and the pharynx, for a patient, a catheter may be drawn out from the feeling of a restraint by detaining not only becoming pain but a catheter. And since it made an ulcer into the portion in contact with a catheter in crossing to a long period of time, this method was also difficult for the adaptation to the patient who needs long-term nutrition management.
[0005]A fistula for the enteral feeding from the gastric fistula to supply a nutrition to a stomach lumen from an abdominal wall is constructed in the minor surgery by an endoscope, and a nutrient is supplied from this fistula. Although a minor surgery is required, it is a minor surgery for about 10 minutes, and since a wound part is also small, a patient's recovery is also early. The above passes through the enteral feeding from the gastric fistula, since there are few demands of strict clean nature and there is also little displeasure compared with a nasogastric-tube nutrition compared with a vein nutrition, there is little extraction and a patient's QOL (quality of life) improves. Since management is furthermore fully possible also in being home or an institution, for the prolonged patient who needs nutrition management and care worker, it is the optimal nutrition medication method and the further spread will be expected from now on.
[0006]The minor surgery shown in the enteral feeding from the gastric fistula is endermic endoscopic gastrostomy (Percutaneous Endoscopic Gastrostomy :P EG.), Generally there are three kinds of methods, the pull (Pull) method, the push (Push) method, and the introducer (Introducer) method, in the endermic endoscopic gastrostomy.
[0007]the introducer method -- the puncture from an abdominal wall -- it is the method that the bottom inserts and detains a catheter from the lumen of truck curl. endoscope insertion can be managed at once -- a puncture -- in order for the bottom to insert a catheter from a truck curl lumen, it is said that there are few infectious diseases, but there are restrictions of the bore diameter of TORAKARU and the catheter of a thick path cannot be used as a catheter to detain. Since only a balloon-shaped thing was used as a stopper at the tip of a catheter which detains in stomach walls, a catheter may deviate by the burst of the balloon after detention, etc., and the care worker also needed to manage the swelling of the balloon

periodically.
[0008]The pushing method is a method of drawing out and detaining a guide wire, when the catheter which accompanies the guide wire which jumped out of the mouth besides the abdominal wall, and is detained from a mouth is stuffed into the stomach and a catheter comes out from an abdominal wall. Compared with the introducer method, the shape of the stopper at the tip of a catheter which can detain the catheter of a thick path and detains in stomach walls does not need periodical management still like balloon shape where stomach walls have little deviation of a catheter because of the shape which can be held firmly, either.
[0009]However, in order to check the detention position of catheter construction and a catheter in the case of a minor surgery, it is necessary to insert an endoscope twice. Although it is needless to say in the case of construction, the check of a detention position is indispensable for the firm fistulization. However, this had become pain for the patient. It adheres to the catheter which the bacteria in the mouth detain, and there is a problem with which the wound part which carried out the puncture by this is infected, therefore disinfection in the mouth is carried out to before an operation. However, while disinfection became time and effort, it was in the difficult situation to prevent an infectious disease only now.
[0010]The catheter detained from a mouth to the guide wire which projected out of the abdominal wall is connected to the pull method at the tip of a guide wire which projected from the mouth, It is the method of detaining a catheter in the stomach from a mouth by pulling the guide wire which projected out of the abdominal wall, and is the technique most used from the certainty of the technique. It had the merit and demerit same as a method that are only the differences in whether this method is pushed in as compared with the pushing method, or it pulls, and detain a catheter in the stomach from a mouth.
[0011]
[Problem(s) to be Solved by the Invention]The purpose of this invention is to provide the infection preventing gastrostomy kit which there is no pain to a patient simple and can detain a catheter without infecting a wound part, when enforcing the gastrostomy via an endoscope.
[0012]
[Means for Solving the Problem]Namely, this invention has a stopper at one end, and comprises an exaggerated tube for introducing into a stomach lumen a catheter and a catheter which are fixed by penetrating an abdominal wall in a stomach lumen and the outside of the body, It is an infection preventing gastrostomy kit performing hydrophilic processing to at least one side of an outer wall of a lumen of an exaggerated tube or a catheter, and a stopper.
[0013]
[Embodiment of the Invention]A drawing explains this invention in detail below. Drawing 1 shows the whole exaggerated tube used in the one example of this invention, and drawing 2 is a figure showing the whole catheter with a stopper at the end used in the one example of this invention. Drawing 3 shows the sectional view of the human body at the time of constructing the catheter by the pull method used as one example of this invention using an exaggerated tube. Furthermore, drawing 4 shows the sectional view of the human body at the time of checking the detention position with the endoscope after the catheter construction used as 1 operation of this invention.
[0014](Exaggerated tube) The exaggerated tube (1) of drawing 1 comprises a mouthpiece (2) and a tube (3), the mouthpiece (2) is attached to the end face side of a tube (3), and the flange (4) is provided in the both ends. This is provided in order to give rigidity so that it may not damage, when a patient bites a mouthpiece (2) so that a patient can hold a mouthpiece (2) in his mouth in the state where it was stabilized and. Although hard resin of a styrene system is preferred as construction material, if it is the construction material which is comfortable and is rigid when it adds, limitation will not be carried out to this.
[0015]In order that the exaggerated tube (1) inserted from the mouth may pass the flection near a pharynx part (7), its supple construction material is preferred and polyvinyl chloride system resin, polyurethane system resin, or resin of a rubber system is still more preferred. However, because of flexible construction material, in order to crush the lumen of a tube (3) by the flection (7) shown in drawing 3 and to prevent this, it is preferred to embed the metal beforehand processed into the coiled form and hard resin into the wall of a tube (3). Although styrene resin is preferred as stainless steel and hard resin as metal, if the embedding to the inside of the wall of a tube (3) is possible, it does not change by a flection and rigidity can be held, limitation will not be carried out to these.
[0016]As for the detained exaggerated tube (1), it is preferred that it is the length to which the tip part is

located near the pars cardiaca ventriculi through an esophagus. As for the length of an exaggerated tube (1), since the operativity of the catheter to detain worsens when an exaggerated tube is longer than this position, choosing according to a patient's physique is preferred. As for the diameter of inside and outside of an exaggerated tube (1), it is preferred to choose the diameter of inside and outside which should just double with the outer diameter of the endoscope to be used, and can ease the burden to the patient at the time of insertion as much as possible.

[0017]Next, when inserting an exaggerated tube (1), in order [in which medical devices, such as an endoscope inserted in the improvement in insertion nature and the lumen of the exaggerated tube, are caught at the tip of an exaggerated tube] to carry out thing prevention, it is preferred to give an angle to a longitudinal direction at the tip of an exaggerated tube. Although it is this angle, when too large, it is preferred for insertion nature to worsen, and to become a longitudinal direction of an exaggerated tube (1) and a range whose angle which the field which gave the angle makes is 30 to 70 degrees, in order for a tip to become an acute angle and to inflict damage on an organization, if too small. As for the peripheral part which gave the angle, it is preferred to cut off the corners in order to prevent the tissue damage at the time of insertion.

[0018](Catheter) The stopper (6) for fixing to stomach walls is attached to the end face side, and the catheter (5) of drawing 2 is a type used by the pull method. Since it fixes to stomach walls for a long period of time, a stopper (6) is elasticity, and his construction material with the sufficient conformity to a living body is preferred, and silicone and polyurethane are still more preferred. The conical shape and dome shape which will be changed if a catheter is pulled by power fixed as shape are preferred. Although based also on the size of the wound part which carried out the puncture as an outer diameter of a catheter (5), the range of 5-11 mm is preferred, and in order to slush a nutrient and medicine into the stomach via the lumen of this catheter further, it is preferred to make it the inside diameter in which plugging does not occur.

[0019]Since a catheter (5) is united with a stopper (6) and it is processed by adhesion or insert molding, It is preferred to use the same construction material, and since a stopper's (6)'s localization may be carried out by X ray imaging after construction, it is preferred that the stopper (6) itself has imaging nature, and it is still more preferred to use the contrast medium of a barium system and a bismuth system.

[0020]Since the thickness measurement of an abdominal wall is needed when exchanging this catheter (5) furthermore, it is preferred that the graduation is printed by the peripheral part of a catheter (5) for every constant interval from the stopper (6). This catheter (5) has the preferred construction material which connects to the ring (9) of the end of a guide wire when the ring (10) of the end of a catheter is attached and a catheter (5) is inserted from a mouth, in order to use it by the pull method, and is supple.

[0021](Directions for use) It is an example of use of one example of this invention, and one example which constructs a catheter (5) by the pull method using an exaggerated tube (1) is shown in drawing 3. The exaggerated tube (1) is inserted and detained from the mouth, and in order that a catheter (5) may pass the lumen of this exaggerated tube (1), bacteria do not adhere to a catheter from a mouth. The ring (10) of the end of a catheter is connected to the ring (9) of the end of the guide wire which projected from the mouth as operation, Although a catheter (5) is drawn in the lumen of an exaggerated tube (1) from a mouthpiece (2) by pulling slowly the guide wire (8) which projected from the abdominal wall, the stopper (6) for fixing to stomach walls at this time has to draw in the lumen of an exaggerated tube (1).

[0022]As aforementioned, an elastic material is used as this stopper's (6)'s construction material, and when a stopper's (6)'s size is still larger than the inside diameter of an exaggerated tube (1), ** which a stopper (6) sticks to the lumen of the drawn exaggerated tube (1), and passes an exaggerated tube is difficult. Therefore, when hydrophilic processing is performed to the lumen of the exaggerated tube (1), sterile distilled water etc. are poured into the lumen of an exaggerated tube. When hydrophilic processing is performed to the outer wall of the catheter (5) and the stopper (6), Since it can detain smoothly if it inserts in the place which gave lubricity to it having poured sterile distilled water etc. on the outer wall, a catheter can be detained without infecting a wound part, while enforcement without the pain to a patient is attained. It is preferred to process by hydro-gel for this hydrophilic processing, and it is still more preferred to process by hyaluronic acid, a polyvinyl pyrrolidone, poly vinyl alcohol, polyacrylamide, gelatin, and collagen.

[0023]As shown in drawing 4 after construction, insert an endoscope (11), using the exaggerated tube (1) used when constructing for the check of the detention position of the stopper (6) of a catheter (5) as it is, but. Since the exaggerated tube is passed and an endoscope can be inserted smoothly, the pain to a

patient is reduced greatly.
[0024]
[Effect of the Invention]The infection preventing gastrostomy kit by this invention becomes possible [there being no pain to a patient simple and detaining a catheter], without infecting a wound part, when enforcing the gastrostomy via an endoscope.

[Translation done.]

TECHNICAL FIELD

[Field of the Invention]This invention relates to an infection preventing gastrostomy kit. When enforcing the gastrostomy especially via an endoscope, infection is prevented, and it is related with the infection preventing gastrostomy kit used in order to detain a catheter simple.

[Translation done.]

PRIOR ART

[Description of the Prior Art]As a medication method of the nutrition to the patient who cannot take in a nutrition from taking orally, generally, it passed and three kinds, a vein nutrition, a nasogastric-tube nutrition, and the enteral feeding from the gastric fistula, were performed.
[0003]Although it passes and a vein nutrition is what is called a drop by drop titration that supplies a nutrition from a vein, since strict clean nature is required while there is a merit which can be enforced to any patients, this has a heavy burden to a care worker, and the management by being home is dramatically difficult. Since it became increase of a burden to a care worker further because a health care cost becomes big-ticket, especially the adaptation to the patient who needs prolonged nutrition management was difficult.
[0004]A nasogastric-tube nutrition inserts a catheter from a nose, a catheter is detained in the stomach, and a nutrient is supplied. While there is a merit which can be enforced easily, since the detained catheter contacts a nasal cavity and the pharynx, for a patient, a catheter may be drawn out from the feeling of a restraint by detaining not only becoming pain but a catheter. And since it made an ulcer into the portion in contact with a catheter in crossing to a long period of time, this method was also difficult for the adaptation to the patient who needs long-term nutrition management.
[0005]A fistula for the enteral feeding from the gastric fistula to supply a nutrition to a stomach lumen from an abdominal wall is constructed in the minor surgery by an endoscope, and a nutrient is supplied from this fistula. Although a minor surgery is required, it is a minor surgery for about 10 minutes, and since a wound part is also small, a patient's recovery is also early. The above passes through the enteral feeding from the gastric fistula, since there are few demands of strict clean nature and there is also little displeasure compared with a nasogastric-tube nutrition compared with a vein nutrition, there is little extraction and a patient's QOL (quality of life) improves. Since management is furthermore fully possible also in being home or an institution, for the prolonged patient who needs nutrition management and care worker, it is the optimal nutrition medication method and the further spread will be expected from now on.
[0006]The minor surgery shown in the enteral feeding from the gastric fistula is endermic endoscopic gastrostomy (Percutaneous Endoscopic Gastrostomy :P EG.), Generally there are three kinds of methods, the pull (Pull) method, the push (Push) method, and the introducer (Introducer) method, in the endermic endoscopic gastrostomy.
[0007]the introducer method -- the puncture from an abdominal wall -- it is the method that the bottom inserts and detains a catheter from the lumen of truck curl. endoscope insertion can be managed at once -- a puncture -- in order for the bottom to insert a catheter from a truck curl lumen, it is said that there are few infectious diseases, but there are restrictions of the bore diameter of TORAKARU and the catheter of a thick path cannot be used as a catheter to detain. Since only a balloon-shaped thing was used as a stopper at the tip of a catheter which detains in stomach walls, a catheter may deviate by the burst of the balloon after detention, etc., and the care worker also needed to manage the swelling of the balloon periodically.
[0008]The pushing method is a method of drawing out and detaining a guide wire, when the catheter which accompanies the guide wire which jumped out of the mouth besides the abdominal wall, and is detained from a mouth is stuffed into the stomach and a catheter comes out from an abdominal wall. Compared with the introducer method, the shape of the stopper at the tip of a catheter which can detain the catheter of a thick path and detains in stomach walls does not need periodical management still like balloon shape where

stomach walls have little deviation of a catheter because of the shape which can be held firmly, either.
[0009]However, in order to check the detention position of catheter construction and a catheter in the case of a minor surgery, it is necessary to insert an endoscope twice. Although it is needless to say in the case of construction, the check of a detention position is indispensable for the firm fistulization. However, this had become pain for the patient. It adheres to the catheter which the bacteria in the mouth detain, and there is a problem with which the wound part which carried out the puncture by this is infected, therefore disinfection in the mouth is carried out to before an operation. However, while disinfection became time and effort, it was in the difficult situation to prevent an infectious disease only now.
[0010]The catheter detained from a mouth to the guide wire which projected out of the abdominal wall is connected to the pull method at the tip of a guide wire which projected from the mouth, It is the method of detaining a catheter in the stomach from a mouth by pulling the guide wire which projected out of the abdominal wall, and is the technique most used from the certainty of the technique. It had the merit and demerit same as a method that are only the differences in whether this method is pushed in as compared with the pushing method, or it pulls, and detain a catheter in the stomach from a mouth.

[Translation done.]

EFFECT OF THE INVENTION

[Effect of the Invention]The infection preventing gastrostomy kit by this invention becomes possible [there being no pain to a patient simple and detaining a catheter], without infecting a wound part, when enforcing the gastrostomy via an endoscope.

[Translation done.]

TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention]The purpose of this invention is to provide the infection preventing gastrostomy kit which there is no pain to a patient simple and can detain a catheter without infecting a wound part, when enforcing the gastrostomy via an endoscope.

[Translation done.]

MEANS

[Means for Solving the Problem]Namely, this invention has a stopper at one end, and comprises an exaggerated tube for introducing into a stomach lumen a catheter and a catheter which are fixed by penetrating an abdominal wall in a stomach lumen and the outside of the body. It is an infection preventing gastrostomy kit performing hydrophilic processing to at least one side of an outer wall of a lumen of an exaggerated tube or a catheter, and a stopper.

[0013]

[Embodiment of the Invention]A drawing explains this invention in detail below. Drawing 1 shows the whole exaggerated tube used in the one example of this invention, and drawing 2 is a figure showing the whole catheter with a stopper at the end used in the one example of this invention. Drawing 3 shows the sectional view of the human body at the time of constructing the catheter by the pull method used as one example of this invention using an exaggerated tube. Furthermore, drawing 4 shows the sectional view of the human body at the time of checking the detention position with the endoscope after the catheter construction used as 1 operation of this invention.

[0014](Exaggerated tube) The exaggerated tube (1) of drawing 1 comprises a mouthpiece (2) and a tube (3), the mouthpiece (2) is attached to the end face side of a tube (3), and the flange (4) is provided in the both ends. This is provided in order to give rigidity so that it may not damage, when a patient bites a mouthpiece (2) so that a patient can hold a mouthpiece (2) in his mouth in the state where it was stabilized and. Although hard resin of a styrene system is preferred as construction material, if it is the construction material which is comfortable and is rigid when it adds, limitation will not be carried out to this.

[0015]In order that the exaggerated tube (1) inserted from the mouth may pass the flection near a pharynx part (7), its supple construction material is preferred and polyvinyl chloride system resin, polyurethane system resin, or resin of a rubber system is still more preferred. However, because of flexible construction material, in order to crush the lumen of a tube (3) by the flection (7) shown in drawing 3 and to prevent this, it is preferred to embed the metal beforehand processed into the coiled form and hard resin into the wall of a tube (3). Although styrene resin is preferred as stainless steel and hard resin as metal, if the embedding to the inside of the wall of a tube (3) is possible, it does not change by a flection and rigidity can be held, limitation will not be carried out to these.

[0016]As for the detained exaggerated tube (1), it is preferred that it is the length to which the tip part is located near the pars cardiaca ventriculi through an esophagus. As for the length of an exaggerated tube (1), since the operativity of the catheter to detain worsens when an exaggerated tube is longer than this position, choosing according to a patient's physique is preferred. As for the diameter of inside and outside of an exaggerated tube (1), it is preferred to choose the diameter of inside and outside which should just double with the outer diameter of the endoscope to be used, and can ease the burden to the patient at the time of insertion as much as possible.

[0017]Next, when inserting an exaggerated tube (1), in order [in which medical devices, such as an endoscope inserted in the improvement in insertion nature and the lumen of the exaggerated tube, are caught at the tip of an exaggerated tube] to carry out thing prevention, it is preferred to give an angle to a longitudinal direction at the tip of an exaggerated tube. Although it is this angle, when too large, it is preferred for insertion nature to worsen, and to become a longitudinal direction of an exaggerated tube (1) and a range whose angle which the field which gave the angle makes is 30 to 70 degrees, in order for a tip to become an acute angle and to inflict damage on an organization, if too small. As for the peripheral part

which gave the angle, it is preferred to cut off the corners in order to prevent the tissue damage at the time of insertion.
[0018](Catheter) The stopper (6) for fixing to stomach walls is attached to the end face side, and the catheter (5) of drawing 2 is a type used by the pull method. Since it fixes to stomach walls for a long period of time, a stopper (6) is elasticity, and his construction material with the sufficient conformity to a living body is preferred, and silicone and polyurethane are still more preferred. The conical shape and dome shape which will be changed if a catheter is pulled by power fixed as shape are preferred. Although based also on the size of the wound part which carried out the puncture as an outer diameter of a catheter (5), the range of 5-11 mm is preferred, and in order to slush a nutrient and medicine into the stomach via the lumen of this catheter further, it is preferred to make it the inside diameter in which plugging does not occur.
[0019]Since a catheter (5) is united with a stopper (6) and it is processed by adhesion or insert molding, It is preferred to use the same construction material, and since a stopper's (6)'s localization may be carried out by X ray imaging after construction, it is preferred that the stopper (6) itself has imaging nature, and it is still more preferred to use the contrast medium of a barium system and a bismuth system.
[0020]Since the thickness measurement of an abdominal wall is needed when exchanging this catheter (5) furthermore, it is preferred that the graduation is printed by the peripheral part of a catheter (5) for every constant interval from the stopper (6). This catheter (5) has the preferred construction material which connects to the ring (9) of the end of a guide wire when the ring (10) of the end of a catheter is attached and a catheter (5) is inserted from a mouth, in order to use it by the pull method, and is supple.
[0021](Directions for use) It is an example of use of one example of this invention, and one example which constructs a catheter (5) by the pull method using an exaggerated tube (1) is shown in drawing 3. The exaggerated tube (1) is inserted and detained from the mouth, and in order that a catheter (5) may pass the lumen of this exaggerated tube (1), bacteria do not adhere to a catheter from a mouth. The ring (10) of the end of a catheter is connected to the ring (9) of the end of the guide wire which projected from the mouth as operation, Although a catheter (5) is drawn in the lumen of an exaggerated tube (1) from a mouthpiece (2) by pulling slowly the guide wire (8) which projected from the abdominal wall, the stopper (6) for fixing to stomach walls at this time has to draw in the lumen of an exaggerated tube (1).
[0022]As aforementioned, an elastic material is used as this stopper's (6)'s construction material, and when a stopper's (6)'s size is still larger than the inside diameter of an exaggerated tube (1), ** which a stopper (6) sticks to the lumen of the drawn exaggerated tube (1), and passes an exaggerated tube is difficult. Therefore, when hydrophilic processing is performed to the lumen of the exaggerated tube (1), sterile distilled water etc. are poured into the lumen of an exaggerated tube. When hydrophilic processing is performed to the outer wall of the catheter (5) and the stopper (6), Since it can detain smoothly if it inserts in the place which gave lubricity to it having poured sterile distilled water etc. on the outer wall, a catheter can be detained without infecting a wound part, while enforcement without the pain to a patient is attained. It is preferred to process by hydro-gel for this hydrophilic processing, and it is still more preferred to process by hyaluronic acid, a polyvinyl pyrrolidone, poly vinyl alcohol, polyacrylamide, gelatin, and collagen.
[0023]As shown in drawing 4 after construction, insert an endoscope (11), using the exaggerated tube (1) used when constructing for the check of the detention position of the stopper (6) of a catheter (5) as it is, but. Since the exaggerated tube is passed and an endoscope can be inserted smoothly, the pain to a patient is reduced greatly.

[Translation done.]

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1]It is a figure showing the whole exaggerated tube used as one example of this invention.
[Drawing 2]It is a figure showing the whole catheter with a stopper at the end used as one example of this invention.
[Drawing 3]The sectional view of the human body at the time of constructing the catheter by the pull method used as one example of this invention using an exaggerated tube is shown.
[Drawing 4]The sectional view of the human body at the time of checking the detention position with the endoscope is shown after the catheter construction used as 1 operation of this invention.
[Description of Notations]
1 Exaggerated tube
2 Mouthpiece
3 Tube
4 Flange
5 Catheter
6 Stopper
7 Flection
8 Guide wire
9 The ring of the end of a guide wire
10 The ring of the end of a catheter
11 Endoscope

[Translation done.]

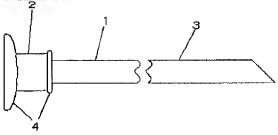
* NOTICES *

JPO and INPIT are not responsible for any
damages caused by the use of this translation.

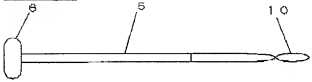
1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DRAWINGS

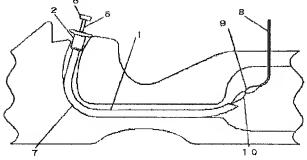
[Drawing 1]



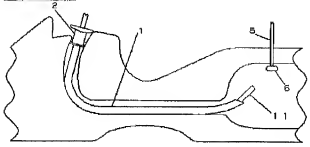
[Drawing 2]



[Drawing 3]



[Drawing 4]



[Translation done.]